

Minutes, 11/17/04 Tevatron BPM Upgrade Meeting
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This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Report from Bob and Steve
2. Report from subproject leaders
3. Report from Technical Coordinator and prep for A3 commissioning -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

- Filter and timing board purchases are essentially placed. More details in Bob Forster's report below.

- Thursday we will have an A3 commissioning discussion. Next Monday we will continue the calibration discussion. Beam is still scheduled for Nov 29 and we plan to be ready.

- Bob is marking up Jim's modes of operation document and will send his comments later. One issue he would like to bring up is to encourage parameters that can be modified (details can be found in his comments). This will allow more flexibility in the software and in particular give it more applicability to the MI front-end.

- Cable testing continues. 6 of the 4 inch cables were bad (2 had connectors that fell off, 4 had bad transmission) and 1 of the clock synch cables was bad.

2. Reports from L2 Managers

Bob Forster:

- The filter board has been awarded to Lace Technologies and the timing card to Creative Hi Tech. The timescale for both boards is 4 weeks ARO. Given that there are holidays coming up and that there will be testing, etc. once the boards arrive this likely means that production boards will be available for installation in early January.

- Bob showed a plot of the diagnostic test signals on the 5 pilot filter boards (40 channels) before and after the attenuators. The

spread in the distribution was about 10%.

- We discussed using the Optilogic boxes for VME crate monitoring and possibly control. The decision was made to go ahead with the boxes and to mount them somewhere in the rack (not on the VME crate) so that they can be more generally available. Bob will talk with Brian and Charlie to work out details and create the necessary purchase requisitions, acquire the proper cables, etc.

- The panels are in the machine shop.

Tim Kasza:

- New firmware was obtained from Echotek last week and testing has resumed on the Echotek boards. All 150 boards for the TeV BPM projects have arrived. Details of the testing status can be found in Tim's slides -- 1381-v9. So far 5 boards had hardware problems and were returned to Echotek.

- 23 new Echotek boards have arrived. These are for the MI/Transfer line BPM projects.

- Cables. Waiting for the last cable order, scheduled for shipping November 24.

- Tim's group is installing PMC boards into the MVME processor boards.

- 12 DAWN VME crates have arrived for the Transfer BPM project.

- The testing for the filter and timing boards is being discussed and preparations and thinking are being made to build the teststands needed for production board testing.

Brian Hendricks:

- Lin Winterowd continues working on the display applications and frame types. Brian mentioned a p/pbar switch in the software. A discussion of the desirability to display both p and pbar at the same time and not have a switch occurred. Brian will look into it.

- Bob West was (as of Monday) waiting for Luciano for the data acquisition spec. Brian will contact Luciano to clarify.

Mike Martens:

- Working through the modes of operation writeup and will have

comments for Jim.

- Mike and others in the Tevatron Department are looking into turn-by-turn and other applications that will potentially use the new BPM data. This is an extremely positive development and will hopefully lead to quick use of the data that the new system will produce. The biggest issue for the TeV BPM project is how this affects the deliverables of the project. So far there has been no specific feedback or new requests.

- Bob asked about the Lebedev head-tail effect and asked if we have the correct information in our turn by turn data to try to correct. We should have the raw I and Q information capability.

Rob Kutschke:

- Rob will be sending comments to Jim on the modes of operation document.

- Rob showed some results from his study (AD doc #1448) that showed that a phase shift of 1 degree leads to a measurement error of on order 10 microns. He has asked Gustavo to do the calculation in Gustavo's simulation to see what answer is obtained.

3. Technical Coordinator -- Jim Steimel

- Preparations for the A3 crate installation and commissioning continue. Jim has all the hardware except for the filter boards. The plan is to update the front-end code, test closed orbit and possibly other modes on the teststand and then move the whole crate + cards and cables to A3 next Monday or Tuesday.

- Next in line is to set up the B3 crate in FCC3.

4. AOB.

- Will meet Thursday November 18 at 1:30 P.M. to discuss A3 installation plans.

- Plan to meet Monday November 22 at 11:00 A.M. to discuss calibration.